

## [ CLAIMS

1. A ceramic heater comprising a ceramic substrate and a heating element disposed either on the surface or internally  
5 of the substrate,

wherein the work-heating surface has a JIS B 0601 surface roughness of  $R_{max} = 0.05$  to  $200 \mu m$ .

2. A ceramic heater comprising a ceramic substrate and a heating element disposed either on the surface or internally  
10 of the substrate,

wherein said ceramic substrate contains an element other than its dominant constituent elements and the work-heating surface of the heater has a JIS B 0601 surface roughness of  $R_{max}$   
15  $= 0.2$  to  $200 \mu m$ .

3. The ceramic heater according to Claim 1 or 2  
wherein said ceramic substrate is at least one member selected from among a nitride ceramic, a carbide ceramic and  
20 an oxide ceramic.

4. A ceramic heater comprising a nitride ceramic substrate and a heating element either on the surface or internally of said substrate,  
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wherein said nitride ceramic substrate contains an element other than its principal constituent elements and the work-heating surface of the heater has a JIS B 0601 surface roughness of  $R_{max} = 0.2$  to  $200 \mu m$ .

5. A ceramic heater comprising a nitride ceramic substrate and a heating element either on the surface or internally of said substrate  
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wherein said nitride ceramic board contains at least one element selected from Na, B, Y, Li, Rb and Ca and a work-heating  
35 surface has a JIS B 0601 roughness value of  $R_{max} = 0.2$  to  $200$

$\mu$ m. SUB  
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5 [ 6. The ceramic heater according to Claim 4 or 5 wherein said nitride ceramic board has the form of a disk having a diameter of more than 150 mm.

B3 7. The ceramic heater according to Claim 4, 5 or 6 wherein the content of at least one element selected from the group consisting of Y, Li, Rb and Ca is not less than 0.1 weight %.

15 8. The ceramic heater according to Claim 4, 5 or 6 wherein the content of at least one element selected from the group consisting of Na and B is not less than 0.05 ppm.

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